[redacted] XIX

XIX 24

9d 1101

VWZ Official File Cy

CLASSIFICATION CHANGED TO [redacted] APR 1965

[redacted]

4545 TEST WG/ARNOLD AFB TENN

ARNOLD AFB TENNESSEE

4544 TEST WG/SATELLITE SUNNYVALE CALIF

LOCKHEED MISSILES & SPACE DIVISION SUNNYVALE CALIF

LOCKHEED MISSILES & SPACE DIVISION P. O. BOX 1546 VANDENBERG AFB CALIF (COURIER) XBM

[redacted] AEROJET COMPANY P. O. BOX 1554 VANDENBERG AFB CALIF (COURIER) XBM

[redacted] VAN DENBERG DIVISION VANDENBERG AFB CALIF (COURIER) XBM

[redacted] VAN DENBERG DIVISION VANDENBERG AFB CALIF (COURIER) XBM

4564 TEST WG VANDENBERG AFB CALIF (COURIER) XBM

DOWNGRADED AT 3-YEAR INTERVALS; DECLASSIFIED AFTER 12 YEARS DOD DIR 5200.10

[redacted] FROM TWR 11-20-68

LOEA FOR WEST; 4564-TW FOR COL MOORE, LMSD/SUNNYVALE FOR DEPT 61-44 (R. W. MARSH); LMSD/TAFB FOR DEPT 61-44; DAC FOR MR. MECKMAN. INFO: LMSD FOR COLMAN POST,

20 DEC 1968

VWZ

OFFICE	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
NAME (SIGNATURE)					
DATE					

AFBMD Form 11
1 Nov 59

COORDINATION [redacted]

Replaces AFBMD Form 11, 1 Jun 59.

Cpy #1 of 2 cpys

[illegible] TESTING VANDENBERG AFB CALIF [redacted]

[illegible] AND TT FOR [illegible]. [illegible]. SUBJECT: FLASH REPORT ON LAUNCHING OF DISCOVERER XIX [illegible].

1. DISCOVERER XIX COMPOSED OF THOR BOOSTER NO. [illegible] AND AGENA B ORBITAL STAGE NO. 1101 WAS LAUNCHED FROM [illegible], PAD 1, AT [illegible] PST ON 20 DECEMBER 1960. THE PRIMARY LAUNCH OBJECTIVE, TO PLACE THE DISCOVERER SATELLITE WITH PAYLOAD INTO NEAR-POLAR ORBIT, WAS ACCOMPLISHED. ORBIT ATTAINMENT HAS BEEN CONFIRMED BY ACQUISITION ON THE FIRST PASS BY THE KODIAK, VAFB AND HAWAIIAN TRACKING STATIONS. DATA ACQUIRED ON THE FIRST PASS INDICATED THAT THE CONTROL GAS PRESSURE HAD BEEN DEPLETED AND THAT THE VEHICLE WAS EXPERIENCING ATTITUDE VARIATIONS. THE CAUSE OF THE CONTROL GAS DEPLETION NOTED ON THE FIRST PASS HAS NOT BEEN DETERMINED.

2. THE PRIMARY TEST OBJECTIVES FOR DISCOVERER XIX LAUNCH AND ASCENT WERE AS FOLLOWS. (REFERENCE DETAILED TEST OBJECTIVES, LMSD [illegible], SECTION 2.)

A. DISCOVERER BOOSTER

THE BOOSTER MUST POSITION THE DISCOVERER

VWZ

[redacted] [redacted]

[redacted]

[redacted]

[redacted] [redacted]

[illegible] AND GAIN

SEPARATION [illegible] OCCURRED AT T+[illegible] SEC AND [illegible] AT T+[illegible] SEC. THE VEHICLE POSITION, FLIGHT PATH ANGLE, AND VELOCITY WERE WITHIN THE PRESCRIBED LIMITS AT BOOSTER SHUTDOWN. THE TRAJECTORY DURING THE BOOST PHASE WAS ABOUT 1 DEGREE [illegible] OF NOMINAL AND SLIGHTLY HIGH. THE AGENA DATA SHOW LONGITUDINAL VIBRATIONS BETWEEN T+[illegible] SEC AND T+[illegible] SEC BUT THE MAGNITUDE IS NOT SO GREAT AS DURING THE LAUNCH OF DISCOVERER XVIII.

B. AGENA AIRFRAME AND ADAPTER - OBJECTIVE ACHIEVED.

NO INDICATIONS OF STRUCTURAL PROBLEMS IN THE AGENA AIRFRAME OR ADAPTER HAVE BEEN FOUND.

C. AGENA PROPULSION SYSTEM - OBJECTIVE ACHIEVED.

THE [illegible] ROCKETS EFFECTED SEPARATION AT T+1[illegible] SEC. THE AGENA PROPULSION SYSTEM OPERATED SATISFACTORILY FROM T+[illegible] SEC TO T+[illegible] SEC AND PROVIDED A SUITABLE VELOCITY GAIN OF [illegible] FPS WHICH WAS ADEQUATE FOR ORBIT AT THE INJECTION ALTITUDE.

D. AGENA ELECTRICAL POWER SYSTEM - OBJECTIVE

[redacted] [redacted]

[redacted]

[redacted]

[redacted]

[illegible] THEN [illegible] AND CA [redacted]

FROM LIFT-OFF TO T+540 SEC BY THE VAFB AND PT MUGU VERLORT RADARS. [illegible] COMMANDS WERE PROPERLY RECEIVED AND RESPONDED TO BY THE VEHICLE.

G. GROUND SUPPORT EQUIPMENT - OBJECTIVE ACHIEVED.

THE BOOSTER AND ORBITAL STAGE WERE SATISFACTORILY CHECKED OUT BY THE GROUND SUPPORT EQUIPMENT.

H. DISCOVERER TRACKING FACILITIES - OBJECTIVE ACHIEVED.

THE AGENA TELEMETRY SIGNAL WAS RECEIVED FROM LIFT-OFF TO T+[illegible] SEC BY THE VAFB AND PT MUGU TRACKING STATIONS AND THE [illegible] DATA RECORDS ARE OF GOOD QUALITY. A SATISFACTORY GROUND COMMAND CAPABILITY WAS DEMONSTRATED AND STATION COORDINATIONS WERE ADEQUATE. LOW COMMERCIAL POWER VOLTAGE TO THE VAFB TRACKING STATION CAUSED PROBLEMS WHICH [illegible] TERMINAL COUNTDOWN. LAUNCH SUPPORT OPERATIONS AT THAT STATION WERE CONDUCTED ON [illegible] POWER.

4. ADDITIONAL INFORMATION

A. FOUR HOLDS WITH A TOTAL DURATION OF [illegible] MINUTES WERE EXPERIENCED DURING THE COUNTDOWN.

VWZ [redacted]

[redacted]

[illegible] THEY [illegible] FOR [illegible]

B. THE INJECTION ALTITUDE WAS [illegible] STATUTE MILES, THE INJECTION VELOCITY WAS [illegible] FPS, THE INJECTION FLIGHT PATH ANGLE WAS [illegible] DEGREES AND THE DEPARTURE AZIMUTH WAS [illegible] DEGREES AS DETERMINED FROM RADAR PLOTTING BOARD DISPLAYS.

C. THE LAUNCH OF DISCOVERER XIX WAS ACCOMPLISHED ON THE SECOND ATTEMPT. THE FIRST ATTEMPT ON [illegible] DECEMBER 1960 WAS ABORTED BECAUSE OF HYDRAULIC SYSTEM MALFUNCTIONS.

D. ELECTRICAL CABLING AT THE BASE OF THE BLAST WAS EXTENSIVELY DAMAGED BY HEAT AND WILL REQUIRE MORE THAN NORMAL REPLACEMENT. THE TIME REQUIRED FOR THE REFURBISHMENT HAS NOT YET BEEN ESTABLISHED.

[redacted]